

Abstract

A method for recognizing a user-defined model object within an image is provided, which is invariant to occlusion (i.e., the object to be found is only partially visible), clutter (i.e., there may be other objects in the image, even within the model object), non-linear illumination changes, and global or local contrast reversals. The object to be found may have been distorted when compared to the user-defined model by geometric transformations of a certain class, e.g., translations, rigid transformations (translation and rotation), similarity transformations (translation, rotation, and uniform scaling), or arbitrary affine transformations.